

MONTHLY WEATHER REVIEW,

SEPTEMBER, 1880.

(General Weather Service of the United States.)

WAR DEPARTMENT,

Office of the Chief Signal Officer,

DIVISION OF

TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE.

INTRODUCTION.

In preparing this REVIEW the following data, received up to October 14th, have been used, viz: the regular tri-daily weather charts, containing the data of simultaneous observations taken at 143 Signal Service stations and 15 Canadian stations, as telegraphed to this office; 165 monthly journals and 160 monthly means from the former, and 15 monthly means from the latter; reports from 23 Sunset stations; 204 monthly registers from Voluntary Observers; 41 monthly registers from United States Army Post Surgeons; Marine Records; International Simultaneous Observations; monthly reports from Voluntary Observers in, and the local Weather Service of, Missouri; reliable newspaper extracts; special reports.

BAROMETRIC PRESSURE.

The general distribution of the atmospheric pressure, as reduced to sea-level, for the month of September, 1880, over the United States and Canada is shown by isobaric lines on chart No. II. At a few out-lying stations the means are given in figures indicating English inches. The regions of highest pressures, as usual, include the South Atlantic States and the North Pacific Coast region. The regions of lowest pressures are the valleys of the Red River of the North and of California.

Departures from Normal Values for September.—The barometric means for September, 1880, when compared with the average for past years, show but slight and unimportant departures. The New England coast reports slight deficiencies, amounting at Boston and Portland to 0.05 inch. In the Northwest, St. Vincent—where the pressure was 0.11 below—is the only station reporting any great departure from the normal. In the South Atlantic States, the following excesses are reported: Savannah and Jacksonville, 0.05, and Augusta, 0.07 above the normal.

Barometric Ranges.—The local barometric ranges, reduced to sea-level, have been quite irregular but not excessive. The ranges along the Gulf coast have been from 0.20 at Key West to 0.47 at Mobile and New Orleans. In the Atlantic States, the range steadily increased northward from 0.41 at Jacksonville to central New England, where the following ranges occurred: Boston, 0.84; Springfield, 0.86; and Albany, 0.87. In the Upper Lake region the ranges were from 0.65 at Detroit to 0.86 at Marquette. In the Northwest the ranges were decidedly irregular, being 0.78 at Bismarck, 0.88 at Breckenridge and 0.94 (the largest in the country) at St. Vincent. On the Pacific coast, the following ranges were reported: 0.24 at San Diego, 0.29 at San Francisco, and 0.55 at Portland.

Areas of High Barometer.—During September, 1880, six areas of high pressure prevailed. No. I was a storm of marked severity in the Lake region, where, during its prevalence, a number of disasters to shipping occurred. No. II is particularly noticeable as having originated on the Pacific coast, and as having moved eastward across the Rocky Mountains. The only extensive and damaging frosts occurred in connection with area No. VI during September 30th and October 1st.